

REMARKS

Claim 7 stands rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (U.S. 5,654,566). Independent claim 7 has been amended herein, and Applicants therefore traverse this rejection at least in light of these amendments. The cited reference is drawn primarily to a magnetic random access memory (MRAM) device, whereas the present invention is drawn toward a magnetic head that senses and detects an external magnetic field for detecting a signal from a magnetic recording medium.

In MRAM devices, such as those taught by Johnson, it is known that such technology will necessarily have to select a specific memory cell. The magnetic spin injected-FET structure disclosed by Johnson is not specifically described, however, to be a magnetic sensor that detects an external magnetic field, as is the case with the magnetic head now more clearly recited in claim 7 of the present Application.

Johnson repeatedly teaches that its device is used to write information, in the form of magnetization, in the ferromagnetic electrode 116 when in the writing mode. (See col. 12, lines 48-62). Johnson's device reads information differently, however, in the reading mode. Johnson discloses that magnetic information is read by way of detection of a sensing current provided to the read line 354 (See Fig. 7B), or to the sense circuit 380 (see Fig. 7C). Magnetization in the ferromagnetic electrode 116 is therefore not influenced by an external magnetic field, and Johnson even several times teaches against such occurrences.

According to the present invention, on the other hand, the magnetic head is used with a magnetic recording/reproducing apparatus that detects a signal from a magnetic recording medium. As discussed above, not only does Johnson fail to teach such use, Johnson even teaches away from these amended claim features. The present invention is thus capable of avoiding the necessary selection transistor that Johnson integrates with a magnetic head. Accordingly, Applicants submit that Johnson does not read upon the present invention, and therefore the outstanding rejection should be withdrawn at least in light of these amendments.

Claims 8 and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson. Applicants respectfully traverse this rejection for at least the reasons discussed above. Claims 8 and 9 both depend from independent claim 7, and therefore include all of the features of the base claim, plus additional features.

As further discussed previously, and above, the advantageous structure of the present invention is able to avoid the additional elements required with Johnson's device, including the application of a gate voltage to the gate electrode, and the addition of a selection transistor integral with a magnetic head. These advantages are distinct, and have not been challenged by the Examiner on the record. Accordingly, the obviousness rejection should be withdrawn for at least these reasons as well.

For all of the foregoing reasons, Applicants submit that this Application, including claims 7-9, is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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